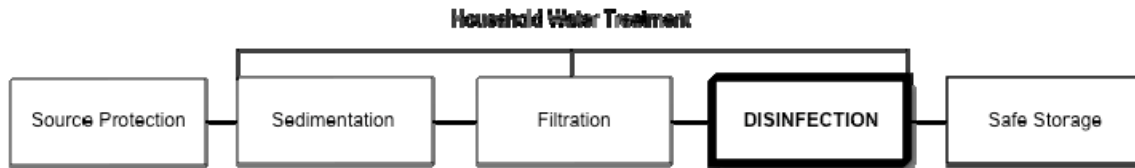


# Household Water Treatment and Safe Storage Fact Sheet: Solar Pasteurization

## The Treatment Process



## Effectiveness

Very Effective For:	Somewhat Effective For:	Not Effective For:
<ul style="list-style-type: none"> <li>• Bacteria</li> <li>• Viruses</li> <li>• Protozoa</li> <li>• Helminths</li> </ul>		<ul style="list-style-type: none"> <li>• Turbidity</li> <li>• Chemicals</li> <li>• Taste, smell, colour</li> </ul>

## How Does it Work?

Pasteurization disinfects water by heat or radiation. Typical water pasteurization achieves the same effect as boiling, but at a lower temperature (usually 65-75°C), over a longer period of time. A simple method of pasteurizing water is to put blackened containers of water in a solar cooker.

## Effectiveness

- Quality: Very effective for all pathogen types; not effective for turbidity, chemicals, taste, smell or colour
- Quantity: Depends on size of container being used
- Local water: The less turbid the better

## Appropriateness

- Local availability: Can be constructed with local materials
- Time: 1-4 hours or more to reach optimal temperatures, weather dependant
- Operation and maintenance: Users need to manage a rotation system to ensure availability of treated water; system should be cleaned regularly
- Lifespan: 5+ years



## Acceptability

- Taste, smell, colour: No change from source water
- Ease of use: Solar pasteurization boxes can also be used as solar cookers for cooking meals; Boiling is sometime preferred because it provides a way to see when the water has reached a high enough temperature without needing a thermometer

## Cost

- Initial purchase cost: US\$20-25
- Operating cost: US\$0/year